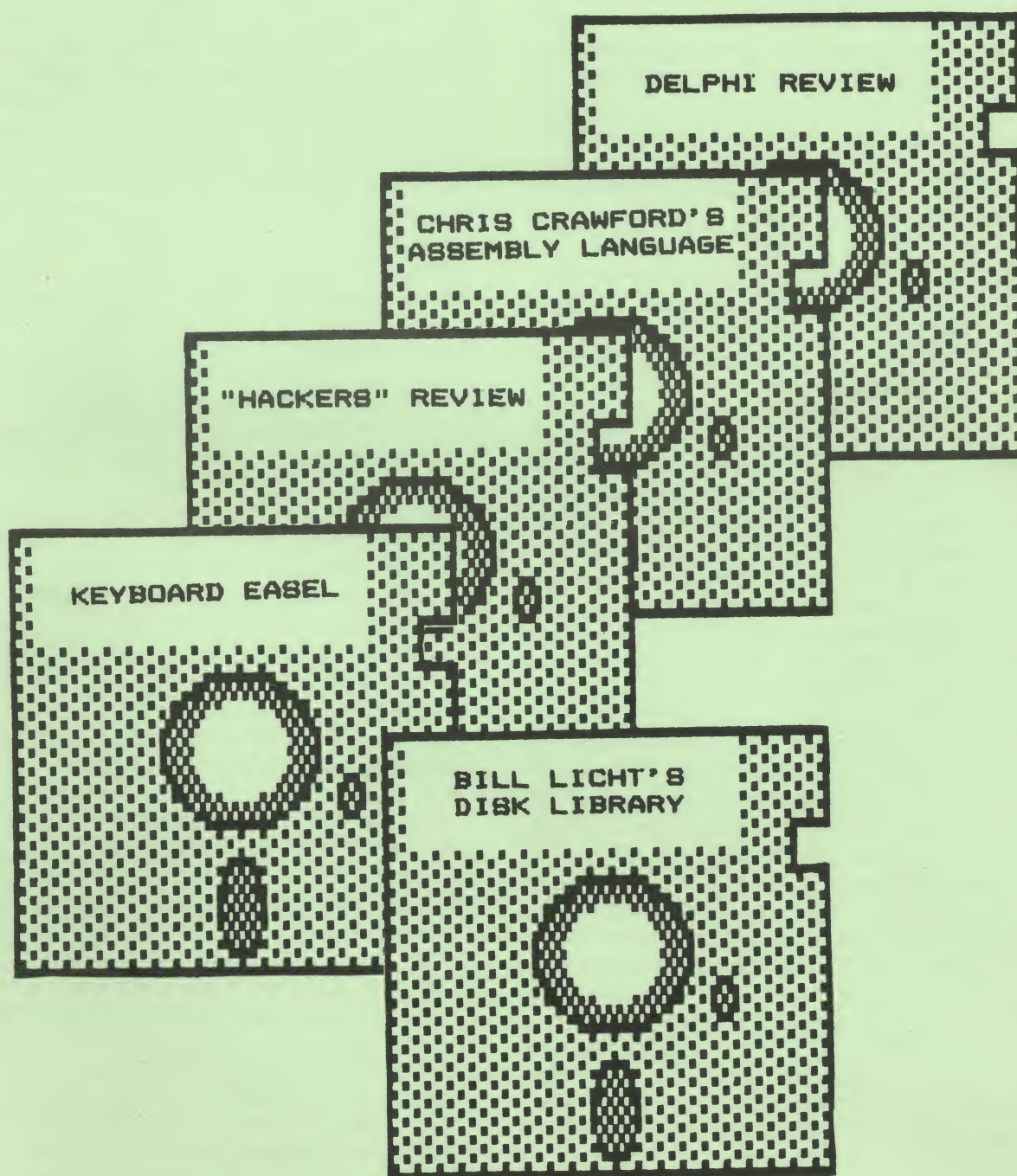


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NOVEMBER, 1985  
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# M.A.C.E. JOURNAL

*"Devoted Exclusively To The Atari Computer User"*



**Published by the Michigan Atari Computer Enthusiasts**



## "Y" = CHAT MODE

by MACE President Alva Thomas

Sometimes getting started is the hardest part, so... I will make this as painless for me as possible. In order for you to understand the preceding, you have to know that I would rather be doing a thousand other things than to be sitting here writing this column. What do you say to members of a club whose reasons for becoming part of MACE are as varied as their interests, ages, and abilities? An easy beginning would be to tell some of my reasons for joining MACE and the influence that reasoning has had on the plans presented to the other officers for my term as President

Like many of you, I had purchased my system without knowing what I could do with it (other than playing Star Raiders). The cassette-based system was too limiting, so I added an 822 printer first, then an 810, then an 850, and finally a Hayes 300 Smartmodem. Wow!! That was like giving a teen keys to the old man's car! There's a whole 'nother world out there. Faraway places were just an ATDT command away. I was hooked. MACE, MACE West, ARCADE, Capt. Kurt (that was it for local boards at the time), CHAOS (Lansing), GRASS (Grand Rapids). This was fun! I wanted to be part of all this. I wanted to be a SYSOP. So I went to the source of the program, so to speak. I joined MACE.

That was the attraction for me. It was with this in mind that I proposed to the officers of MACE a plan to add four additional club sponsored boards and to convert our existing MACE West board to a state of the art BBSsystem. The new boards are part of our growth plan, and will be set up in communities targetted for potential new members. They will also be located so that at least one will not be a long distance call for a majority of the members. The first area scheduled for a MACE BBS is the Ann Arbor/Ypsilanti/Plymouth area. Other areas under consideration include Monroe, Holland, Saginaw, Gaylord, Flint, Alpena, Muskegon, and Marquette.

The main MACE BBS will be a completely new, toll-free (in Michigan), 300/1200/2400 baud, 10 Meg hard-disk drive system. The hard disk will be partitioned so that members ONLY will have access to ALL areas of the board. The D/L sections will include some of the all time favorite files that are no longer available and a copy of the D/L currently on the other MACE boards.

As the plans for the boards become finalized, the officers will report the status and start-up dates to the members. In future "Y" = Chat Mode" columns, I will write briefly on other subjects which could have an effect on the club and its members. Such topics will include our tax status, location of our meetings, changes in our constitution and bylaws, and responses to questions and comments. We welcome your ideas on what this club should be and what it should do for its members. Chat with you next month.

Bye... Alva

## THE EDITOR'S PAGE

by Michael Schiffer

Hello... and I'm afraid, good-bye. Since last month's meeting, I have had new constraints placed on my time which makes my continuing with the Journal impossible. I certainly don't intend to leave you in the lurch! I will continue as editor until I am replaced, but this month or next it will be necessary to arrange for a new one. I will, however, seek to maintain the high standard of quality set by my predecessor until that time.

In any case, there is only one way to keep the Journal satisfactory to the members of MACE. YOU must tell us what YOU want to see, and you must help us bring it to you. If you want more reviews and fewer columns, then: 1) tell the Editor that's what you want to see, or drop a note into the suggestion box, and 2) write a review of your latest purchase! These articles don't come up out of thin air, after all. The MACE fairy doesn't wave her magic wand over a disk, on which files suddenly appear.

MEMBERS write those articles, reviews, and programs you see this month! You (I assume) are a member. Therefore you could be writing for the Journal! Earn fame, acclaim, and prestige! (No money, though.) Write anything from a review of the latest action video game to a public domain spreadsheet in assembly language! Whatever your abilities may be, MACE needs YOU to write on that level. If you're a relatively new user who remembers the questions complete novices ask and you now have the answers, write them down! We are the Michigan Atari Computer Enthusiasts, aren't we? Let's show some enthusiasm!

MACE is now a bit over four years old. (Yes, I KNOW we celebrated our fifth birthday in May! It was, counting the first meeting ever as our first birthday.) We have passed the fiery youth when everybody and his second cousin was buying a computer, and Atari was the top seller of home machines. We peaked out at over a thousand members, compared to the relatively steady 800 or so we have today. The fact that the computer has been replaced by the Cabbage Patch doll in the hearts of the Christmas shoppers (as Coleco found out) means that we can only grow by expanding the number of people we serve. We intend to do that by setting up the many BBS's President Thomas proposes, and also by including the ST's under our banner. Still, everyone must do his/her/its share. We cannot rely on letting someone else do everything, or someday we will find that no one will do anything.

("Hey, wait a minute! He's quitting the Journal! Who's he to talk?")

You don't think you're getting rid of me THAT easily, do you? I'll still be writing reviews, helping Program Director Garland with the meetings, and I'm sure I'll find other things to busy myself with.

Finally, I would like to express my thanks to all who helped me put this month's Journal together. First and foremost, Contributing Editor Ann McBain Ezzell. Special thanks to Scott Garland and Eric Schiffer. Thanks also to: Paul Wheeler, Mike Lechkun, Bill Licht, Fernando Hidalgo, Kirk Revitzer, Alva Thomas, and Gordon T. Totty.

## MACE JOURNAL LISTING CONVENTIONS

To reduce our readers' eyestrain, we have adopted a special method for listing programs. Programs will be listed in 38 column format, and certain characters will be replaced by an abbreviated form of their function, printed within curly braces (see below). Any characters to be typed in inverse video will be underlined, and control characters will be represented by their respective letters within curly braces. If a character within braces is also underlined, toggle the inverse video on and then hold down the control key while typing the character.

This method may seem awkward at first, but you should quickly get used to it, and the listings will be much easier to read. The special characters which will be spelled out are as follows:

When you see:    You should type:

{CLEAR}	ESC SHIFT <
{UP}	ESC CTRL -
{DOWN}	ESC CTRL =
{LEFT}	ESC CTRL +
{RIGHT}	ESC CTRL x
{BACK S}	ESC DELETE
{DELETE}	ESC CTRL DELETE
{INSERT}	ESC CTRL INSERT
{DEL LINE}	ESC SHIFT DELETE
{INS LINE}	ESC SHIFT INSERT
{TAB}	ESC TAB
{CLR TAB}	ESC CTRL TAB
{SET TAB}	ESC SHIFT TAB
{BELL}	ESC CTRL 2
{ESC}	ESC ESC
{COMMA}	CTRL , (comma)
{PERIOD}	CTRL . (period)
{SEMI-COLON}	CTRL ; (semi-colon)
{SHIFT =}	SHIFT =

If you see:    Type:

{A}	CTRL A
<u>A</u>	INV. VIDEO A
<u>{A}</u>	INV. VIDEO CTRL A



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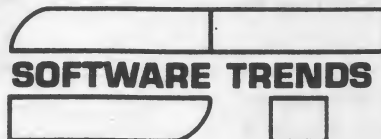
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## DISKLIB

By Bill Licht

There are several programs around that offer help in organizing one's collection of disks. I feel that most of these programs require too much user input and are at times a bit too cumbersome to use. Recently I was looking for a program that I knew I had and realized that I should have used one of those cataloging programs. Since I really didn't like the ones I had, I decided to write one of my own. The only input required from the user is a number for each disk, and a periodic YES or NO answer.

Type in the listing and SAVE a copy to disk. Before you begin to use the program you should take a little time to organize your disk collection and put a number on each disk. The program uses the format: XXXA/B. (Three digits and one letter for either side A or side B.) 025A would indicate disk #25, side A.

DISKLIB creates a file on disk that you can ADD to, SORT, Print a hard copy, etc. The program is really self-explanatory, but I would suggest that you use the QUIT option when you are through because the file that was created will be locked.

When you ADD a disk to the file, the first thing that happens is that the directory is displayed on the screen. You then have the option of either returning to the menu or adding that disk. In lines 330-350 I added several checks to make sure that certain program files were not added to the Disk file. I didn't want DOS.SYS, DUP.SYS, or MENU repeated several times in my file. If there are any other designations that you would like to eliminate, add them to the program as you type it in.

The SORT routine was modified from a program by Jerry White called VARISORT that was published in Antic Magazine, June 1984, Page 60.

The CLEANING routine was added for one situation that I think we all have come across. Let's say that you have recently added a

program to disk #20. Let's also say that disk #20 was already added to your Disk file. Obviously you wouldn't want all of the programs listed again, so here's what you do: ADD disk #20 again, using the same number as before. SORT the file. This will put all of the duplicates together. Now CLEAN the file. This routine will eliminate any duplicates in your file.

The PRINT routine in lines 1440-1570 was set up for an ATARI 1027 printer. You may wish to modify it for your own printer. If you do not have a printer, and you try to use this option, an error message will appear on the screen and you can return to the menu.

I personally didn't see a need for a DELETE file routine, because I will very rarely erase any programs once they are added to a disk. If you do wish to delete a record once it is in the file, there are several File Editing programs. One that I have is from COMPUTE!, July 1982, Page 97.



# MACE



## NEW USER FORUM

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**Southfield Civic Center**  
**Parks & Recreation**  
**Meeting Room**

**October 28, 1985**  
**How to use a BBS**  
**AMODEM / MACE Terminal**

**November 25, 1985**  
**An Introduction to**  
**ATARI BASIC Language**

**December , 1985**  
**NO MEETING**  
**Have a nice Holiday**

**INFO : Call Tom Sturza**  
**Between 6-10 P.M.**  
**477-2345**

```

10 REM Disk Library by Bill Licht
20 REM June 1985 Ver. 2.5
30 GOSUB 830:GOSUB 860:GOTO 60
40 REM Get key value
50 OPEN #2,4,0,"K:";GET #2,KEY:CLOSE #
2:RETURN
60 ? "{CLEAR}":? ,"{DOWN}{DOWN} DISK
LIBRARY":? ," {M}{M}{M}{M}{M}{M}{M}{M}
{M}{M}{M}{M}:? ,"      by":? ," B
ill Licht"
70 ? "{DOWN}{DOWN}{DOWN}{DOWN}{DOWN}{D
OWN}{DOWN}          {N}{N}{N}{N}{N}{N}{N}{N}
{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}{N}
{N}{N}:? "              PRESS RETURN TO BEGI
N"
80 ? "                {M}{M}{M}{M}{M}{M}{M}{M}
{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}
}"
90 GOSUB 50
100 IF KEY=155 THEN 130
110 GOTO 90
120 REM Main Menu
130 ROF=PEEK(1790)*256+PEEK(1789):REM
ROF=# of Records on file
140 ? "{CLEAR}":? ,"{DOWN}{DOWN}LIBRAR
Y MENU":? ," {M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}{M}
{M}{M}{M}"
150 ? "        1) ADD....Append File";CR$
;"       2) READ...Display on Screen";CR
$;"       3) SORT...Alphabetize"
160 ? "        4) CLEAN..Eliminate Duplic
ates";CR$;"       5) PRINT..Hard Copy";C
R$;"       6) QUIT...Lock File & End"
170 ? "{DOWN}           RECORDS ON FILE:
";ROF
180 ? ","{DOWN}{DOWN}{DOWN}INPUT CHOICE
"
190 GOSUB 50
200 IF KEY=49 THEN 260:REM ADD
210 IF KEY=50 THEN 670:REM READ
220 IF KEY=51 OR KEY=52 THEN 960
230 IF KEY=53 THEN 1450:REM PRINT
240 IF KEY=54 THEN 1590:REM END
250 GOTO 190
260 ? "{CLEAR}":? "{DOWN){DOWN}
INSERT DISK TO CATALOG";CR$;"{DOWN}
PRESS RETURN""
270 GOSUB 50
280 IF KEY=155 THEN 300
290 GOTO 270
300 ? "{CLEAR}":TRAP 40000:? "(UP) WH
AT NUMBER IS YOUR DISK?";CR$;" FOUR C
HARACTERS ONLY";CR$;" XXXA/B ";INP
UT DNUM#

```

```

310 TRAP 810:OPEN #1,6,0,"D:*. *":TRAP
390:REC=1
320 INPUT #1,B$
330 IF B$(5,8)="FREE" OR B$(11,13)="SY
S" THEN 320
340 IF B$(11,13)="SAV" OR B$(11,13)="D
AT" OR B$(11,13)="CAT" OR B$(11,13)="T
XT" THEN 320
350 IF B$(3,10)="MENU" THEN 320
360 C$(1,8)=B$(3,10):C$(9)="":C$(10,1
2)=B$(11,13):C$(13,16)="":C$(17)=D
NUM$
370 A$(REC*20-19,REC*20)=C$
380 REC=REC+1:GOTO 320
390 CLOSE #1:? "(N)(N)(N)(N)(N)(N)(N)(
N)(N)(N)(N)(N)(N)(N)(N)(N)(N)(N)(N)
(N)(N)(N)(N)(N)(N)(N)(N)(N)(N)(N)(N)
(N)(N)(N)"
400 A=1:? "YOUR DISK NUMBERED ";DNUM$;
" HAS ";REC-1;" FILES":? "(M)(M)(M)(M)
(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)
(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)(M)
(M)(M)(M)(M)(M)(M)(M)"
410 COL=4:ROW=6:N=0:TRAP 490
420 FOR X=20 TO LEN(A$) STEP 20
430 POSITION COL,ROW:? A$(A,X-4)
440 ROW=ROW+1:N=N+1
450 IF ROW=21 THEN POKE 82,20:COL=20:R
OW=6
460 A=A+20
470 IF N=30 THEN 490
480 NEXT X:B$=""
490 POKE 82,2:POSITION 2,22:? "PRESS R
ETURN to ADD or M for MENU":TRAP 40000
500 GOSUB 50
510 IF KEY=155 THEN 540
520 IF KEY=77 THEN A$="":GOTO 130
530 GOTO 500
540 REM OK to ADD Dir to File
550 TRAP 820:OPEN #1,9,0,DB$
560 GOSUB 570:TRAP 40000:GOTO 130
570 R=1
580 TRAP 620
590 B$=A$(R*20-19,R*20)
600 ? #1;B$
610 R=R+1:GOTO 590
620 CLOSE #1:A$=""
630 ROF=ROF+(REC-1)
640 POKE 1790,(INT(ROF/256)):POKE 1789
,(ROF-(PEEK(1790)*256))
650 RETURN
660 REM Display File on Screen
670 TRAP 810:OPEN #1,4,0,DB$
690 TRAP 750:? "(CLEAR)":POSITION 8,0:

```

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```

? "FILE":POSITION 22,0: ? "DISK":POSITI
ON 8,1: ? "{M}{M}{M}{M}":POSITION 22,1:
? "{M}{M}{M}{M}"
700 FOR X=1 TO 18:INPUT #1,B$: ? B$(1,1
6),B$(17,20):NEXT X: ? : ? "      PRESS R
ETURN or M for MENU"
710 GOSUB 50
720 IF KEY=155 THEN 690
730 IF KEY=77 THEN CLOSE #1:TRAP 40000
:GOTO 130
740 GOTO 710
750 CLOSE #1: ? : ? ,"{LEFT}{LEFT}END OF
LISTING"
760 POSITION 2,22: ? "  PRESS RETURN fo
r MENU or E to END"
770 GOSUB 50
780 IF KEY=155 THEN 130
790 IF KEY=69 THEN 1590
800 GOTO 770
810 ? "{CLEAR}":POSITION 10,10: ? "CHEC
K DISK DRIVE":FOR WAIT=1 TO 300:NEXT W
AIT:CLOSE #1:GOTO 130
820 ? "{CLEAR}":POSITION 10,10: ? "PUT
LIBRARY DISK":POSITION 14,11: ? "IN DRI
VE":FOR WAIT=1 TO 300:NEXT WAIT
825 CLOSE #1:GOTO 490
830 DIM A$(900),B$(20),DNUM$(4),CR$(1)
,C$(20),DB$(13)
840 DB$="D:PROGFILE.DB":CR$=CHR$(155):
RETURN
860 GRAPHICS 0:POKE 710,6:POKE 712,128
:POKE 709,0:POKE 752,1
870 POKE 16,64:POKE 53774,64
880 ? "{CLEAR}":POSITION 14,10: ? "PLEA
SE WAIT"
890 REM XIO 36 - Unlock File
895 TRAP 925
900 XIO 36,#1,0,0,DB$:TRAP 930:OPEN #1
,4,0,DB$
910 INPUT #1,B$:REC=REC+1
920 GOTO 910
925 CLOSE #1:IF PEEK(195)=170 THEN OPE
N #1,8,0,DB$:CLOSE #1:POKE 195,0:POKE
1789,0:POKE 1790,0:GOTO 60
930 CLOSE #1:POKE 1790,(INT(REC/256))
940 POKE 1789,(REC-(PEEK(1790)*256))
950 B$="":TRAP 40000:RETURN
960 IF KEY=52 THEN 1220
970 ? "{CLEAR}": ? "{DOWN}{DOWN}{DOWN}{
DOWN}WHICH FIELD TO SORT-";CR$;"{DOWN}
FILE NAME OR DISK #"
980 GOSUB 50
990 IF KEY=68 OR KEY=70 THEN POKE 1792
,KEY:GOTO 1020

```

```

1000 GOTO 980
1010 REM Sort and clean routines
1020 CLR :F=FRE(0)-1000
1030 DIM A$(F),B$(20),C$(20),DB$(13),C
R$(1):A$=" ":A$(F)=" ":A$(2)=A$:B$="":
C$="":DB$="D:PROGFILE.DB"
1040 CR$=CHR$(155):REC=0
1050 TRAP 1430:OPEN #1,4,0,DB$
1060 ? "{CLEAR}": ? "{DOWN}{DOWN}      *RE
ADING*";CR$;," Your File has      rec
ords"
1070 IF PEEK(1792)=68 THEN 1100
1080 IF PEEK(1792)=70 THEN 1090
1090 TRAP 1120:INPUT #1,B$:REC=REC+1:P
OSITION 23,4: ? REC:A$(REC*20-19,REC*20
)=B$:B$="":GOTO 1090:REM READ File
1100 TRAP 1120:INPUT #1,B$:REC=REC+1:C
$(1,4)=B$(17,20):C$(LEN(C$)+1)=B$(1,16
)
1110 POSITION 23,4: ? REC:A$(REC*20-19,
REC*20)=C$:C$="":B$="":GOTO 1100
1120 T=REC: ? "{DOWN}{DOWN}      *SORTING*
";CR$;,"      File is now being SORTED"
:POKE 712,64
1130 REM SORT routine 1100-1200
1140 T=INT(T/3)+1:FOR L1=1 TO REC-T:FO
R L2=L1 TO 1 STEP -T
1150 IF A$(L2*20-19,L2*20)<=A$((L2+T)*
20-19,(L2+T)*20) THEN 1190
1160 C$=A$(L2*20-19,L2*20):A$(L2*20-19
,L2*20)=A$((L2+T)*20-19,(L2+T)*20)
1170 A$((L2+T)*20-19,(L2+T)*20)=C$
1180 NEXT L2
1190 POKE 755,1:POSITION 8,9: ? "PLEASE
WAIT":POKE 755,2:NEXT L1
1200 IF T>1 THEN POKE 53279,0:GOTO 114
0
1210 GOTO 1310
1220 TRAP 1430:OPEN #1,4,0,DB$:REC=1
1230 ? "{CLEAR}": ? "{DOWN}{DOWN}      *CL
EANER*";CR$;,"      To eliminate duplic
ate Records"
1240 TRAP 1310
1250 INPUT #1,B$
1260 A$(REC*20-19,REC*20)=B$:C$=B$:B$=
""
1270 ? "{DOWN}{DOWN}      *WORKING*";CR$;
"      On Record #"
1280 INPUT #1,B$:REC=REC+1:POSITION 19
,8: ? REC-1
1290 IF B$=C$ THEN B$="":REC=REC-1:GOT
O 1280
1300 A$(REC*20-19,REC*20)=B$:C$=B$:B$=
"":POSITION 19,8: ? REC:GOTO 1280

```



```

1310 CLOSE #1
1320 TRAP 40000
1325 ? "{DOWN}{DOWN} *SAVING*";CR$;"
      New File with ";REC;" Records";C
R$;,"{DOWN}{DOWN} PLEASE WAIT":PO
KE 712,128
1330 OPEN #3,8,0,DB$
1340 IF PEEK(1792)=68 THEN 1360
1350 FOR ME=1 TO REC:? #3;A$(ME*20-19,
ME*20):NEXT ME:GOTO 1370
1360 FOR ME=1 TO REC:B$(17,20)=A$(ME*2
0-19,ME*20-16):B$(1,16)=A$(ME*20-15,ME
*20):? #3;B$:B$="":NEXT ME
1370 CLOSE #3
1380 POKE 1790,(INT(REC/256)):POKE 178
9,(REC-(PEEK(1790)*256))
1390 ? "{DOWN}{DOWN}{DOWN} PRESS
RETURN for MENU"
1400 GOSUB 50
1410 IF KEY=155 THEN CLR :GOSUB 830:?
"(CLEAR)":GOTO 130
1420 GOTO 1400
1430 ? "{CLEAR}":POSITION 10,10:? "CHE
CK DISK DRIVE":FOR WAIT=1 TO 300:NEXT
WAIT:? "{CLEAR}":GOTO 1390
1440 REM Printing routine is set up fo
r an ATARI 1027 Printer
1450 ? "{CLEAR}":POSITION 14,10:? "PRI
NTING"
1460 TRAP 1520:OPEN #4,8,0,"P:"
1470 TRAP 1510:OPEN #1,4,0,DB$
1480 FOR X=1 TO 60
1490 INPUT #1,B$:? #4;B$;" "
:INPUT #1,B$:? #4;B$;" "":INP
UT #1,B$:? #4;B$
1500 NEXT X:FOR LINE=1 TO 10:? #4:NEXT
LINE:GOTO 1480
1510 CLOSE #1:CLOSE #4;B$="":GOTO 130
1520 CLOSE #4:? "{CLEAR}":POSITION 14,
10:? "CHECK PRINTER"
1530 ? "{DOWN} PRESS RETURN to
PRINT";CR$;" or M for MENU"
1540 GOSUB 50
1550 IF KEY=155 THEN 1450
1560 IF KEY=77 THEN 130
1570 GOTO 1540
1580 REM End Program
1590 ? "{CLEAR}":POSITION 13,10:? "ARE
YOU SURE?":POSITION 17,12:? "(Y/N)"
1600 GOSUB 50
1610 IF KEY=89 THEN 1650
1620 IF KEY=78 THEN 130
1630 GOTO 1600
1640 REM XIO 35 - Lock File
1650 XIO 35,#1,0,0,DB$:GRAPHICS 0:? "B
ASIC":? "IS":END

```

## KEYBOARD EASEL

From South America With Love

By Fernando Hidalgo

Apaereo 7289

Cali, Colombia

South America

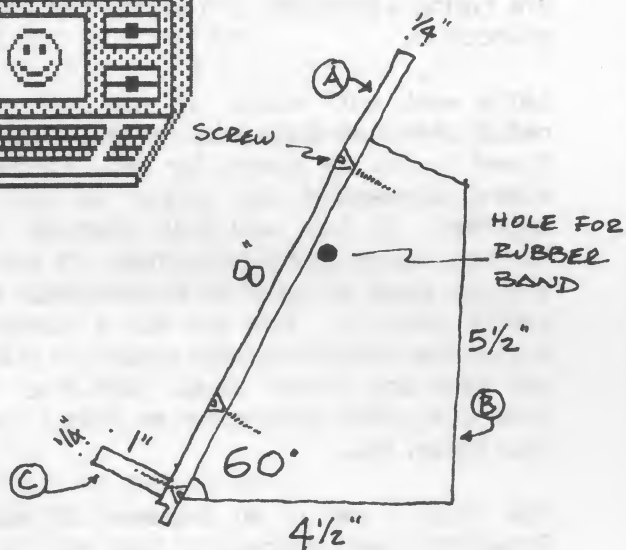
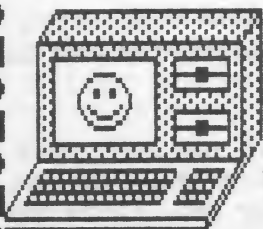
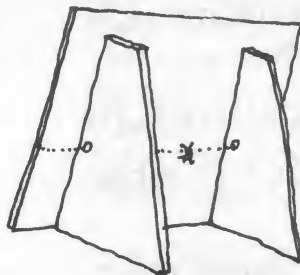
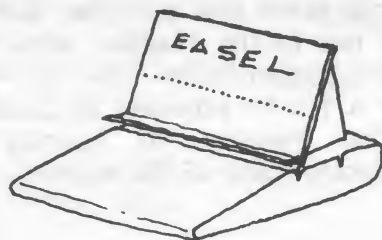
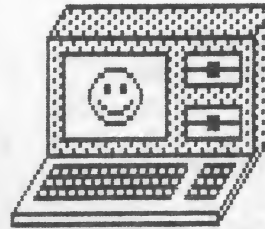
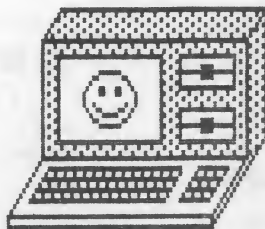
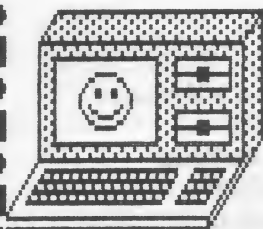
[Senor Hidalgo is one of our "international" MACE members. He says that he planned an article about his computer, but Gordon Totty beat him to the deadline with "My Computer" in the August issue. He has 3 grandchildren, with a fourth expected in December. We are looking forward to hearing more about computing south of the equator. -AME]

Are you dextrous with your hands and wood, cardboard, sheet metal or plastic? What about making an easel for your computer? That way you can have a nice place to keep your quick reference cards, the magazine from which you are typing a program, or the photo of your last grandchild.

Let's work with wood. If you don't have a radial arm saw, table saw or hand saw, ask a friend to cut the pieces for you. Pierce them where convenient to screw or nail them together. If you will kill yourself with a hammer, better use glue instead. If you wish, you can stain or paint it to suit your tastes before using it. You can tie a rubber band around the middle to keep papers in place. If you have any better ideas, feel free to use them and write telling me so that I can use your ideas, too.

The angle I use is 30 degrees. If you have forgotten your geometry, look at the two plastic triangles schoolchildren use. One has two equal sides; the angles opposite the equal sides are 45 degrees each. The other triangle with one side longer than the other is the one you need. The smaller angle, opposite the shorter side, is 30 degrees. If you have problems with the hammer and the angles just buy two plastic triangles and glue them on. If you still have problems, please write to me and I will help as much as I can.

Still have problems? Invite me to your house for next summer and I will make one for you...



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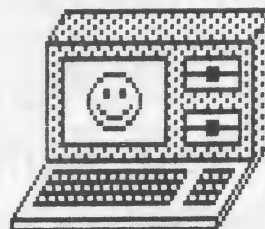
A =  $14 \times 8 \times \frac{1}{4}$

B = TWO  $\Delta 60^\circ$   
 $4\frac{1}{2} \times 5\frac{1}{2} \times \frac{1}{4}$

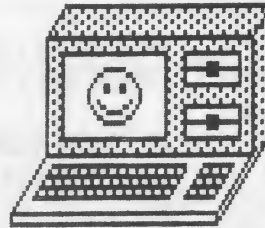
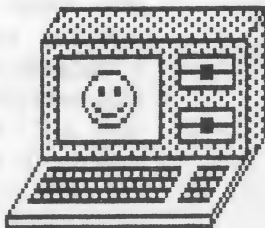
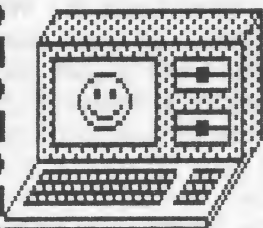
C =  $14 \times 1 \times \frac{1}{4}$

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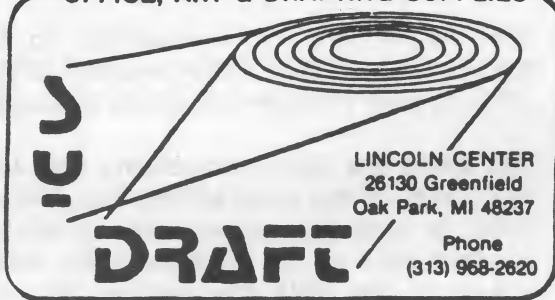
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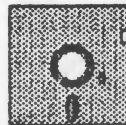
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# ASSEMBLY LANGUAGE COURSE FOR WORLDWIDE USERS NETWORK

By Chris Crawford

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## LECTURE FOUR - 7/22/85 BRANCHING

One of the most important ideas in computing is the concept of conditional execution. This is the ability of the program to execute different routines depending on conditions at the time of execution.

The significance of this capability is best realized by considering how programs would operate in its absence. A program without conditional execution would not be able to change its program flow in response to conditions.

In other words, it would always execute exactly the same code in exactly the same order. Every run of the program would follow exactly the same sequence and perform exactly the same operations. Not very interesting, right?

To get a grip on conditional execution, we need to look at it in its simplest expression. The simplest type of conditional execution is binary in nature. We have a chunk of code; the 6502 will either execute it or it will not execute it. The decision is made on the basis of a Boolean value; a true value will tell us to execute the chunk, while a false value will tell the 6502 not to execute the chunk.

The basic mechanism for doing this is through an instruction that performs a transfer of control. This involves nothing more than altering the program counter. You may recall that the program counter is a register in the 6502 that points to the address of the currently executed instruction.

When that instruction has been executed, the program counter is increased by the length of the instruction (1, 2, or 3 bytes, depending on

the instruction). It now points to the next instruction. This little system allows the 6502 to step through a program in sequence.

But there are also instructions that will alter the value of the program counter, allowing the 6502 to jump to another area of memory and another part of the program. The simplest of these is the JMP instruction. It takes the form JMP LABEL.

This loads the value of the LABEL into the program counter. Its effect is to make the 6502 jump to the address of LABEL and continue execution from there. It is directly analogous to a GOTO instruction in BASIC.

For conditional execution we need something more. We need the 6502 to have capability to make a binary decision based on a binary value. The solution used by the 6502 involves flags. These are single-bit Boolean values stored together in a single byte of the 6502 called the processor status register (SR).

The status register is eight bits wide but stores only seven flags. These seven flags are labelled N, V, B, D, I, Z, and C. You have already encountered the C (Carry) flag and the D (Decimal) flag. In this chapter, we are concerned only with the N, V, Z, and C flags.

The magic instruction that makes possible conditional execution can take many forms. Its general form is Bfv LABEL. The B stands for "branch". The "f" stands for a flag, and the "v" stands for the value of the flag, either true or false. However, in this case, we do not use the terminology "true or false".

Instead we use the terms "set" or "clear". "Set" means the same thing as "1" or "true", while "clear" means "0" or "false". The label is the address to which the 6502 should branch if the condition is satisfied. If the condition is not satisfied, then the 6502 will simply skip this branch instruction and go to the following instruction.

For example, suppose that we have the following instruction sequence:

```
LDA    #0
BCS    KARELIA
LDA    #5
KARELIA STA  FISH
```

This will first load the accumulator with a zero. Then the 6502 encounters the BCS ("Branch on Carry Set") instruction. It looks at the Carry flag. If this flag is set then the 6502 will indeed branch to the label KARELIA. (For all you geography buffs, Karelia used to be in Finland.) In other words, if the Carry flag is set, the 6502 will skip over the LDA #5 instruction. Thus, a zero will be stored into FISH.

However, if the Carry flag is clear, then the 6502 will not take the branch. It will instead continue executing the next instruction, which will load a 5 into the accumulator. Then it will come to the label KARELIA and store that 5 into FISH. Thus, the value of the Carry flag determines whether a zero or a five is stored into FISH.

The converse of BCS is BCC ("Branch on Carry Clear"). This will cause the 6502 to take the branch if the Carry flag is clear.

There is also a pair of similar instructions for the V-flag. These are BVS and BVC. They will cause the 6502 to branch on the value of the V-flag.

Now the situation gets unnecessarily confusing. The instructions for the Z-flag should be BZS and BZC -- "Branch on Z Set" and "Branch on Z Clear". Unfortunately, the dumb designer of the 6502 thought he would get cute at this point, so instead he called these instructions BEQ and BNE, for "Branch on Equal" and "Branch on Not Equal". He never mentioned what he thought is supposed to be equal to what. We're stuck with it, so make the best of it.

Just remember what these instructions really mean BZS and BZC. If you think in terms of the Z-flag, it will work out just fine. If you try to

think in terms of equal or not equal, your attention will be diverted from the real truth of the matter and you may make mistakes. So keep your eye on the ball and think in terms of Z!

The next pair of branch instructions use the N-flag. These are even more insidious than the previous two. They are called BMI and BPL, meaning "Branch on Minus" and "Branch on Plus".

At first glance, these appear to be reasonable substitutions for BNS and BNC. After all, if you load the accumulator with a signed number, and the number is negative, then the N-flag will be set, while if the number is positive, the N-flag will be clear.

Thus, it would seem that BMI is truly equivalent to BNS and BPL is truly equivalent to BNC. This is the source of many a bug in beginner's programs. Consider the following fragment of code:

```
LDA  FISH
SEC
SBC  GOAT
BPL  POSANSR
```

This code is supposed to branch to POSANSR if FISH is greater than GOAT. And indeed, if FISH is greater than GOAT, then when you subtract GOAT from FISH, you will get a positive result, right? Not necessarily!

Suppose, for example, that the value in FISH is \$C1 and the value in GOAT is 1. When the 6502 subtracts GOAT from FISH, it will get a result of \$C0. Note that the highest bit of \$C0 is set to 1. This is the value that will go into the N-flag. In other words, even though FISH is greater than GOAT, the 6502 will not take the branch, and this code will fail.

The moral of this tale is, don't take those instructions literally. They are misleadingly named. When you see BPL, don't think "Branch on Plus", think "Branch on N Clear". Otherwise, you'll screw up someday. By the way, the correct branch to use in the above problem is BCS.

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## MICRO-LEAGUE BASEBALL

By Micro-League Sports Assc.  
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Review by: Chuck Miller

To put it simply, this is the ultimate in baseball realism!!!!

No, this is not your ordinary baseball game where you control your players with the joystick. Instead, you are put in the managers position, to give the game play an entirely different aspect!

As the manager, you must make key decisions to who bats, who plays what position, who pitches, and all the other responsibilities the manager is given.

When you first boot up the program, you will see a title page, and then be asked to press N to start a new game. You are then given the option that separates this game from any other baseball games on the market....The option to choose one of the greatest teams in major league history! You can choose a team such as the 1968 Tigers, or the 1927 New York Yankees. You are also given the option to either be the home team or visitors, or whether you want to play the computer or another person. You can also make it so that the computer plays the computer, and see a demonstration of the game being played!

After you have chosen your team and opponent, a shortened version of the National Anthem is played, and then it is time to play ball!!

As each player steps to the plate, you either choose your offensive or defensive moves, depending on if you are at bat, or in the field. The list of options for when at bat might be (1) swing away, (2) surprise bunt, (3) swing away with aggressive running, and so on. Some defensive moves maybe to (1) play 1st and 3rd baseman in, (2) throw a fastball, (3) throw a slider, and so on.

After the move has been inputted, the computer takes over from there! The players actually

perform to the stats that they had at that time. For example, if Lou Brock was at bat, and he got a hit down the left field line, and he had a chance for a two bagger, with his speed at the time he played, the computer would send him for the double! Another example might be if Babe Ruth was at bat, chances would be in his favor that he would hit a homerun more often than some guy who is batting .155!

To add to the excitement of the game you are shown the play in an awesome display of graphics and text! An example might be, Lou Whitaker leads off the game with a line shot up the middle. The computer would show the pitch come to the plate, then show the batter swing...and come back in the scoreboard at the top of the screen and say:

"Here's a line shot up the middle, this could be in for a hit."

"Yes! that ball had eyes!"

This game has it all! Head first slides, leaping catches, homeruns, chanting music in the background if the situation is tense, surprise bunts, stealing, hit and run, balks, pinch hitters, pinch runners, relief pitchers, warming up in the bullpen, conferences at the mound called by the manager, plus a whole more!!

Anytime during the game, you as the manager can put in a pinch hitter, or pinch runner, or start warming up a relief pitcher (be sure to do this, or the pitcher will get slaughtered!). Pretty real life uh?!!!!

This game is by far the best baseball game on the market, and in fact, one of the best games out!

I have played this game hours on end, and highly recommend it to the everyday baseball fan! There are also other "Data-disks" which will soon be available. Included in these are such teams like All-Star teams, World Series teams, Playoff teams and so on. But, you will have fun enough matching up your two favorite baseball teams, and battling it out, with your first disk!!! Good Luck, and PLAY BALL!!!!!!

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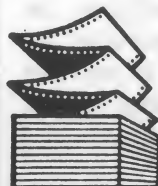
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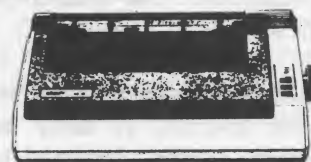
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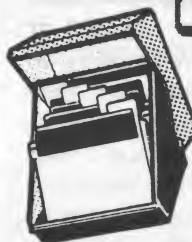
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Now for a catch with the branch instructions. A JMP instruction is a simple absolute jump -- you specify the target address and it goes there. The designers of the 6502 realized that the vast majority of branch instructions only go a short distance. They therefore decided to implement the branch instruction as a relative branch.

The machine code doesn't specify the target of the branch, it only specifies an offset. In other words, instead of saying, "jump there", it says, "jump so many bytes forward or backward." The allowable range is 126 bytes forward or backward. Thus, you can't branch anywhere you want, only to nearby locations. If you must branch further, reverse the logic of the branch and use the branch to skip over a JMP statement.

## DELPHI

Reviewed by Kirk Revitzer

Are you in search of a computer information service with reference libraries, airline guides, Atari files, E-mail, and much more? Well, look no further - Delphi could be it.

Delphi is a pay by the hour service somewhat like CompuServe. The rates, lowest from 6:00 pm until 7:00 am, are \$6.00 per hour for 300 or 1200 bps! The Delphi menus are very easy to follow. I found it much like a regular BBS when I first called. Response time at peak hours slows down somewhat but not drastically.

The first thing I checked out was the SIG\*ATARI. It has a very large message area, file area, and access to Delphi MAIL. Looking through the messages I noticed some of the users' names. There were ANTIC, Russ Wetmore, and Ron Luks. Ron was, and is now on Delphi, the primary Sysop of SIG\*ATARI on CompuServe. I believe Russ is also a Delphi Sysop. So, as you can see, the SIG is in good hands.

Some of the other main features of Delphi include on-line shopping, including access to

CompuServe's Comp-U-Store. The Delphi MAIL also allows "MAIL THRU" so that you could send a CompuServe user E-Mail. Delphi has a 24 hour help line (800 number!) and I called it at various times, and on the weekend, just to see if someone was really there. They were, and they are more than happy to take the time to assist you.

Delphi Starter Kits are around \$29.00 or you can give them a call at 617-491-3393 for information. It's worth looking into!

## PAPERCLIP GRAPHICS UPDATE

By Ann McBain Ezzell

The following suggestion comes from Russ Crum, who got it off of CompuServe from Bob Wilson of Batteries Included. (How's that for a grapevine?) The BASIC graphics screen dump program which comes with PaperClip prints pictures somewhat off-center. You can change the program and, with a little experimentation, get the pictures to line up however you want. First, you must add the following line to the program:

```
140 PRNDR$(46,46)=CHR$(n)
```

where "n" is the number of dot positions (blank dots) to be printed to the left of the picture. The current value is 100; 78 should work for Gemini/Epson printers. You may also have to change the printer configuration codes also, since you will be sending fewer (or more) dots to the printer. (For example, Gemini printers need to be told how many bytes of data will be sent in each line; make sure that these numbers match the value you put into line 140.)

Also from CompuServe comes word from PaperClip co-author Dan Moore that the problem with double column printing I mentioned in last month's review depends on the settings for the column width and the inter-column gap. If you have trouble with getting the last line of column one repeated at the beginning of column two, you might be able to "fix" it by changing the column sizes.

## HOME SWEET HOME COMPUTER!

by Gordon T. Totty

Since my last article I have made an equipment change worth mentioning: I got rid of my Atari 800XL and bought a 130XE. The XE is hard to find. Seems everyone is out of them and waiting for a shipment to come in "any day now". After repeatedly calling a couple of stores handy to my home for the latest news of the "any day" arrival, I drove to Berkley and bought it from the Family Computer Center at a small premium, representing their fee for "support". As near as I can tell, the XE offers the following advantages over the XL:

- \* A far superior keyboard in terms of touch, feel, and inclusion of the graphics characters on the front of the keys, like on the you-know-what brand computer.

- \* Revision C BASIC. Bye-bye, little buggies!

- \* 128K RAM, which can be used with DOS 2.5 as a RAM-disk and which will be utilized by revised versions of SynCalc and SynFile+ (\$10 each to upgrade, according to ANALOG Computing, September 1985, page 88). Other software may be coming for this expanded memory.

- \* An expansion port for a hard disk drive or other I/O devices.

The advantages I listed are the ones most important to me, and it is no random accident that the keyboard is listed first. My wife, an expert typist, tried it and said that I finally own a "real" keyboard. Other, more expert, owners will have to tell you the rest of the 130XE story, like who is this new character named FREDDY and what does he do? This article isn't intended to be a product review, but I thought it might be useful to share the above with you.

Oh....one more sidetrack: where is the new Atari? Why are 130XE's so hard to find? And how many of them have actually been sold? No production, no demand, no outlets, or all of the above? I have read that most of the 520ST

production is going overseas, where prices and profits are higher, and heard a rumor that the FCC had ordered a recall of 520ST's produced for the USA because of an RFI (radio frequency interference) problem. Heard that one from a salesman in a store that had no XE's or ST's in stock. Some of these rumors, or salesmen, are not reliable. I offer for example the assurance from this same chap that I could throw away my Translator disk with the XE. Not true; I've needed it already.

Where are you, Atari? I called K-Mart headquarters in Troy to find out when they would have the 130XE on the shelves and was told that they never heard of it, but they wanted to discuss another brand "C" 128K machine with me that they are getting "any day now". Aaarrgh!

Why do I care so much? Brand loyalty in computers runs pretty high, doesn't it? Naturally, with a software library at stake, we all hope that Atari prospers. The thought of switching and learning all over and building up a new software base not only breaks me out into a cold sweat, it gives me frigid financial shiver fits!

Gosh, I'm lost again. What was this article going to be about, anyway? Home, sweet home, what do you use a home computer for and who needs one? Let's try that for a while.

CORRESPONDENCE. Can't beat 'em at this. This is one heck of an expensive typewriter, but when you type like me you think it is well worth it. My last typewriter had keys that bounced back up after striking, because they were rebounding off a bed of rubber eraser crumbs. My letters shed a lot of light - through the holes where multiple mistakes had occurred. For most purposes, I didn't bother to type because of the agony and frustration. Now I type all the time. I "power type", which means go like the dickens and let the mistakes fall where they may because it is actually fun to use the editing features to turn junk into perfect copy... or something like that. There is pleasure in sitting idle while my printer screams along bashing dots onto the paper not only forward but backward, too. And I now have file copies! Over forty documents on one SS/SD disk. People who don't word process



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don't know what they are missing. (I don't have a spelling checker, but if you have trouble with spelling imagine the joy and relief that this could add.)

**ENTERTAINMENT.** This hardly needs much elaboration to an Atari audience. I love it! I'm a middle aged video game junkie. Pole Position, Pac Man, Centipede, Miner 2049-er, Agent USA, The Seven Cities of Gold, River Raid, Blue Max, even Computer Chess, oh, the hours I have "wasted" in pure pleasure! To what advantage? To the detriment of all the advertisers on the "boob-tube", because with the growth in interest in computer games came a sharp decline in interest in the similar intellectual stimulation of the TV. I suppose that we all need a certain amount of this escapism to relax and there is nothing "wrong" with it. I feel no guilt. I read just as much, maybe even more, than ever. I write more. Pole Position is good for me, and not because it sharpens my driving skills.

**BUDGETING.** To paraphrase an earlier article, because of the home computer my family now knows more about where all the money goes than ever before. This knowledge is potentially useful. And a mountain of records occupies the little space of only six disks. (Has anyone ever compared the cost of paper to the cost of disks? I pay about \$1.00 each for my disks and believe they must be a great bargain relative to buying and handling equivalent paper.)

**TAXES.** I have not and will not charge Uncle Sam, via tax write-off, for any of my home computer equipment. If the usage is fairly apportioned it is not worth the effort. But I do maintain some tax records on the computer, and I use the SynCalc tax template from Antic to estimate my taxes and to check on my return when I am done with it. This almost makes tax time fun, especially if the answers are the good ones.

**EDUCATION.** I think we expect too much here. I have children aged seven and five and have loaded up on educational software: Agent USA (Scholastic); Rhymes & Riddles, Hey Diddle Diddle, Trains, Facemaker, Alphabet Zoo (all from Spinnaker); Peanut Butter Panic (CBS); Dance Fantasy (Fisher-Price); Three-R Math

(APX); MonkeyMath (Artworx); Alien Counter & Face Flash, The Jar Game & Chaos, Battling Bugs & Concentraction, Gulp!! & Arrow Graphics (all from Milliken). The Milliken Publishing Company software represents an excellent bargain lately. Almost every store is selling it out at four or five dollars per disk; one or two years ago I saw this stuff for \$32.95 per disk in "discount" stores.

So, are my kids now budding geniuses? No. They don't even like a lot of this stuff. Or, when they do, the program is long on game and short on education. But I am still a believer in the use of the computer for education; I just do not expect the miracles I might have expected a few years ago when I was reading up on all this and justifying in my mind why MY home had to have a computer. The computer is excellent for drill, because the computer does not get bored, impatient, or angry, and that is helpful to my children because I do get bored, impatient, and angry (I'm a lousy teacher of little kids). But drill is boring and children do get tired of it if it is too thinly sugar coated with graphics and sound.

**HOBBY.** This, for me, is really what it is all about. This is the best reason for owning a home computer, and it is just as good and useful a hobby as any other, bar none, for all of the stuff mentioned above and more. The "more" includes learning about computers and programming for me and the children. Here's an educational pay-off I'm still enthusiastic about: my kids will be just a little better prepared for the computerized world of the future. As for me, I'm an "office worker" who has recently been assured that by 1990 at the latest I will have a computer on my desk. When that happens I'll be more ready than most of my generation.

What else is there? I don't know. I have subscribed to Family Computing, COMPUTE!, Antic, Atari Connection, Atari Explorer, and ANALOG Computing at one time or another and have read countless magazine and newspaper articles on home computers and computing. If I am missing something, why don't you write about it? But do not bother with check book balancing or recipe files; I can't get it through my stubborn head that those applications are

anything other than trivial and not worth the time they would take.

OK, if you have stuck with me this long you deserve to know that FREDDY is another custom chip (like GTIA, POKEY, and ANTIC) in the 130XE. "His" job is memory system control but I'll be darned if I know how he works. Bet on it though, one of the real "hackers" (in the best sense of this abused word) whom I admire and respect will write a future article full of details about this. Bet, too, that I will not understand that article, but I'll read and enjoy all of it!

Finally, as a good MACE member, this article may not have been of much use to you. You knew all this and more, right? In that event, let me close by suggesting you show this one to your Aunt Minnie, who probably cannot understand what in the world you are doing with that stupid machine, or why you lavish so much time and attention on it.

## HACKERS HEROES OF THE COMPUTER REVOLUTION

By Steven Levy  
Anchor Press/Doubleday  
(c) 1984

Reviewed by Ann McBain Ezzell

It all started back in Cambridge, Mass. in the fifties, when members of MIT's Tech Model Railroad Club discovered the joys of "hands-on" computing with the arrival of a TX-0 computer. No more waiting for the high priests of the IBM 704 to deign to feed laboriously key-punched cards into the Hulking Giant, only to discover that a misplaced comma had resulted in a nonfunctioning program. With the TX-0 and later interactive machines, it was possible to work with the computer, putting it through its paces again and again until everything was Just Right. Program tapes went into a common pool, to be modified and improved upon for the benefit of all. Thus was the Hacker Ethic born!

"Access to computers - and anything which might teach you something about the way the world works - should be unlimited and total. Always yield to the Hands-On Imperative!"

Steven Levy's history of hacking spans three "generations" of hackers, from the pioneers at MIT to the seventies California hardware hackers to the superstar game hackers who flourished in the early eighties. By spending countless hours interviewing former and current hackers, Levy has produced an interesting and informative account which gives outsiders a chance to see what it was like as computers emerged from their sanctuaries and became accessible to the general public. (The next time you start to complain about Atari BASIC's lack of string arrays, think about the first owners of the Altair, who had to enter their machine language programs by toggling switches thousands of times - each time they wanted to run a program, since there were no storage devices.) Computing has obviously come a long way in the past 25 years, and reading Hackers is a good way to see just how far.

I think that anyone with an interest in computers will enjoy this book. Levy doesn't deify the hackers; in fact, most of them are described in rather unattractive (although undoubtedly realistic, judging from what I remember from MIT) terms. What he does do is offer insights into how and why the Hacker Ethic developed, and what became of it (and many of the hackers) when commercialism overtook idealism. Especially interesting is the story of Ken and Roberta Williams' company, Sierra On-Line, which started out as a Hacker's Heaven and ended up having to face reality when big bucks hit the scene.

So, the next time you feel like curling up by a warm monitor with a good book, get yourself a copy of Hackers; you might even forget that you were planning to spend the evening slaying aliens.

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## KENNEDY APPROACH

MicroProse Software  
120 Lakefront Drive  
Hunt Valley, MD 21030  
\$39.95 [Sug.Ret.Price]

Reviewed by P.R.Wheeler

This one of several new games recently released by MicroProse. I find this game to be the most unique, which is due to the fact that it has a legible voice confirming your orders, answers, and warnings for the need of emergency landings. Believe me, the voice is legible, static and all.

There are many level of play. The first is the choice of airports and you must start out as a trainee. As you progress, you will be given a choice of staying at the airport that you trained at, moving to graveyard, afternoon, or morning shifts (in order) or you may choose to move to another airport. No matter which you choose, it will be more difficult than the one you just completed.

Upon the end of each shift, you will be graded and paid with bonuses for each successful exit and landing, less fines for DELAYS. If you had no BAD exits, CRASH landings, or too many DELAYS, you will be promoted and given the choice to move on. However, the game ends if any of the above occurs.

While I did enjoy the game and the challenge of increasing the levels and different airports, (there are five, and some like WASHINGTON and NEW YORK have several airports to contend with) I do have several complaints. The first is way the program loads, SLOW..(2 mins)..and it is so copyguarded, that at times I think it is going to shake my drive apart. Another is the fact that I keep getting WRONG EXITS, when such was not the case. At times, it will not accept the access code provided, and it has on several occasions locked up right in the middle of a game, or when I am about to achieve a level where I or no man has gone before.

I for one, believe that when you are charged the price that this one cost, they should perform flawlessly or kept off the market

until the price matches their performance. This aside, I did enjoy the game and hope if you decide to buy one, it will not contain these flaws and you can get on with your flight-controller training.

NOTE: The reviewer provided MicroProse an advance copy of this review and asked that they correct me if I was mistaken or answer with their own comments for publication. A deadline for this issue was given and as of this date I have not had a reply, the review stands as written.

### \*\*\*LATE NOTE\*\*\*

After the deadline for this issue, Mr. Wheeler did in fact receive a two page letter from Microprose. He will write a follow up to this review for next month relating the manufacturer's comments and his responses.

### M.A.C.E. UNCLASSIFIEDS

For sale: Atari 800XL, Atari Disk Drive, books and magazines, over 125 disks. \$350 or best offer. Must sell, call Rick: 758-3607

For sale: Atari 400 w/32K + 410 recorder w/6 tapes-- \$50 or best offer, Signalman Mark II (300 baud) \$50, Signalman Mark XII-- \$150. Call John, 10AM- 10M: 274-0484

Wanted: Atari 800 (not XL). Call Mike Schiffer: 661-5281

### M.A.C.E. GROUP PURCHASE

MACE members may purchase an Atari 130 XE for \$138 including shipping and handling (certified checks and money orders only, please). Contact Corresponding Secretary Sharie Middlebrook.

## THE COMPOSITE MONITOR

by Scott Garland,  
Program Coordinator

This is my first column in what I hope to be a monthly feature in the Journal, so I would like to introduce myself. I am the program coordinator for M.A.C.E., which means that I plan out (or am responsible for the lack thereof) each month's meeting. I have written several reviews for the Journal before, and should have started writing regularly long before this. As to my qualifications: I know BASIC, 6502 Assembly Language, and have a good understanding of Lisp and Pascal. Since I read a lot about computers (yes, computers, not just Atari computers), I'll try to share my thoughts and knowledge with you in the months to come. Please convey your ideas (be they criticism, speculations, or column topics) to me in person, at a meeting, or on the telephone at 851-9453. With this in mind, let's start off with a discussion on new users.

But first this public service announcement: M.A.C.E. needs YOUR input! We must hear some ideas for future meetings, and we would like more member participation. What can you do? Volunteer to demonstrate some software or, just as importantly, to set up and take down rows of chairs. M.A.C.E. exists for its members, but only as long as the members pitch in. Remember the ante-Ezzell age of the Journal? It could happen to the meetings...Contact me at the above number (1:30 PM - 9:00 PM) or any other officer listed at the back of the Journal if you'd like to help. If not, call 472-1212 (you'll get the time of day, which is certainly more than you would be giving the club). Well, enough of this serious stuff; let's get on with the column.

Many M.A.C.E. members have only recently purchased their Atari computers, and are thus computer neophytes. They join the group in order to learn something (anything!) about their computers so they can use them. Unfortunately, the monthly Journal and the 2.5 hour meeting just don't do much for a novice. Q: What is the simple solution to this poser?

A: Read about your Atari. Think I'm joking? Think again. Many new users don't use their God-given intelligence to read everything possible. Well, here's the plan, the steps of which are, apart from the first, in no special order:

1. Read your DOS and BASIC manuals. Follow the examples, and do what they say exactly. You may experiment once you have achieved what they set forth errorlessly.

2. Read some good magazines. COMPUTE! (older issues are best for Atari computers), ANTIC, and Analog provide good programs which can be typed in at your leisure. The magazines sometimes include Atari-related tutorials and software reviews. COMPUTE! even has a few books out for the Atari which are very good (try "COMPUTE!'s First Book of Atari").

3. Buy an inexpensive program and use it to get familiar with actually using a computer.

4. Take some computer courses from adult education, community education, or a local college (it doesn't matter whether or not they deal with the Atari). Alternately, take a class at a computer store (preferably on your brand of machine, because you'll pay more).

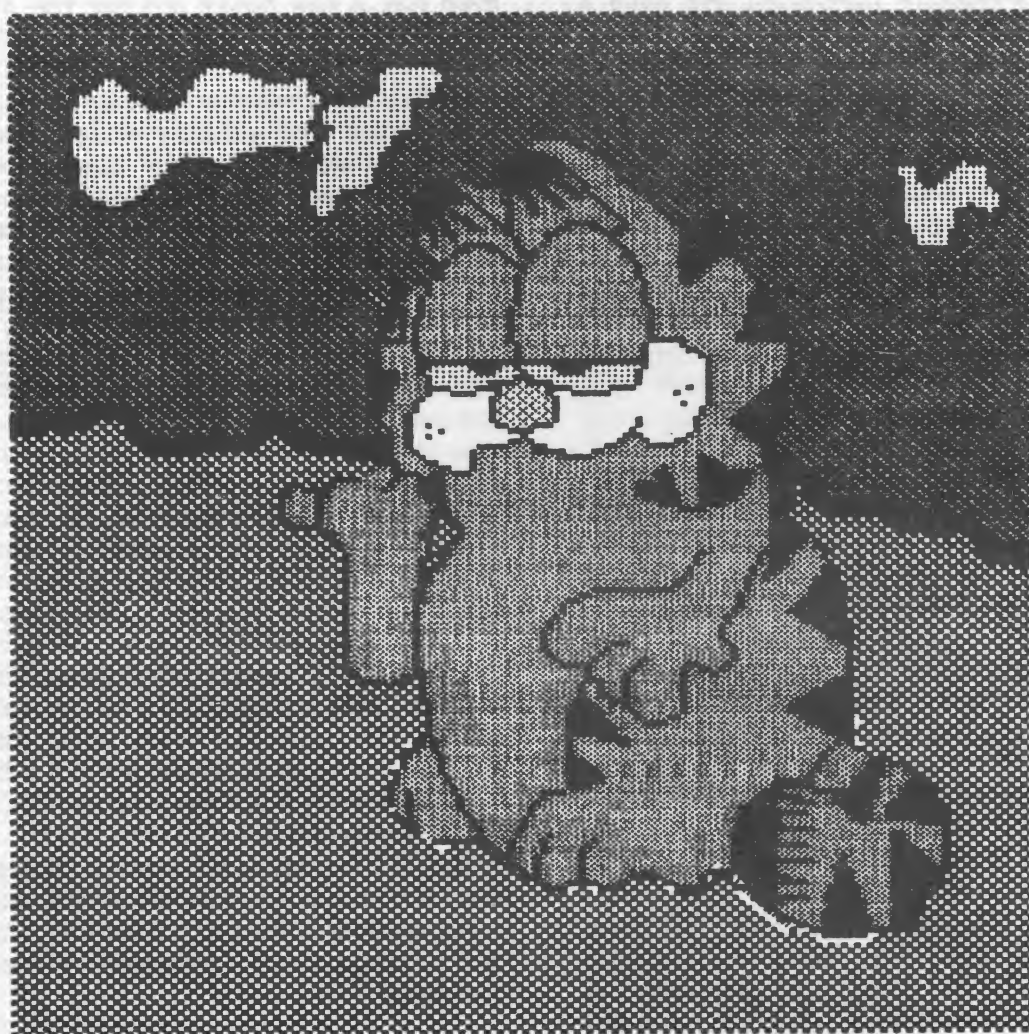
And that's all that it takes, right? Perhaps, but some people might now complain that they now know how to use their Ataris, but what do they use them for? My answer is that they should have their heads checked. Anybody who would spend a couple of hundred bucks on a toy they know nothing about and have no use for is SICK!!!

The moral of the story is this---follow steps two and four before you buy a computer. You should, or should have, also read other magazines, such as BYTE, Creative Computing, Popular Computing, and Personal Computing, for a broader view of the field. Maybe an Atari isn't what you need... Do yourself a favor the next time you are interested in some expensive toy, be it a VCR, a sailboat, a motorcycle, or a microwave oven: learn about it first.

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## THE WRITER'S TOOL GRAPHICS DEVICE

Optimized Systems Software, Inc.

Reviewed by Ann McBain Ezzell

When I wrote my review of OSS's Writer's Tool last month, I had not yet received a copy of the graphics device and the updated (Version 2.25) Writer's Tool. I am pleased to report that they are both as good as I expected. The two obvious changes in the Writer's Tool itself are a speeded up key repeat rate and an 80 character type-ahead buffer which allows faster insertion of characters within your text. The main attraction, however, has got to be the graphics handler which allows printing of graphics right in the middle of your text. This feature puts Writer's Tool, even with its not-so-great Print Preview, at the head of the class as far as powerful, affordable Atari word processors go.

The graphics device (G:) comes as a set of three binary files for Epson, Okidata, and Prowriter printers. (The Epson file works fine with my Gemini-10; check with OSS about other printers.) To use it, you follow the simple directions in the documentation: copy the appropriate file to a disk containing DOS, append the AUTORUN.SYS file from the Writer's Tool disk (I don't think it has to be Version 2.25), rename the resultant file AUTORUN.SYS, and copy over any other needed files (printer configuration, external functions, etc.) to your new disk. When you boot the Writer's Tool cartridge, the G: handler will be automatically installed and ready to go. This uses up 2436 bytes of your text buffer, so you might want to keep another copy of Writer's Tool without it for long files which will not need graphics.

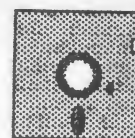
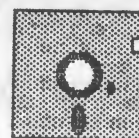
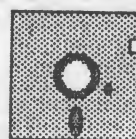
When G: is installed, you can access it with the LINKed printing feature. Instead of LINKing a file from D: for disk, you specify G: for graphics. Writer's Tool takes care of the rest, including keeping track of the number of lines used so that text can be printed on the same page following the graphics, and making sure that the picture will not be split over two pages. The G: handler will work with both Graphics 8 and Graphics 7 1/2 (15 for XL

owners) files. Graphics 7 1/2 files created by MicroIllustrator (Atari Touch Tablet, KoalaPad, etc.) must be in uncompressed form.

There are several options available. You can specify either single or double size for both modes. The "W" option lets you print pictures created with drawing programs which use a screen width other than the standard 40 columns. You can choose to print only part of a screen by specifying the number of vertical pixels to print (default is 192). With single size pictures, you can justify left or right or you can specify the number of bytes to indent from the left margin. You can print any size picture in either "normal" or "inverse", or you can select the shades of gray to be used with a double size Graphics 7 1/2 picture. This last feature makes the printing of MicroIllustrator files a snap, because you can set the "colors" however you want. As you can see from the Garfield pictures printed with this review, setting the shades of gray can make a big difference in a picture's appearance.

The documentation file which comes with the graphics device is worthy of the excellent Writer's Tool manual. You can load it in to learn how to install the graphics device, then print it using the graphics device to produce six attractive pages including charts of the options and the 256 shades of gray available with the "color" option.

The graphics device is available to registered owners of Writer's Tool who send OSS a disk and return postage or who call OSS's bulletin board (408-446-3451) and download it. I believe it will be included with Version 2.25 and future versions. If you already own Writer's Tool, it's well worth the small effort involved to get this upgrade; if you haven't bought Writer's Tool yet, what are you waiting for?!?!



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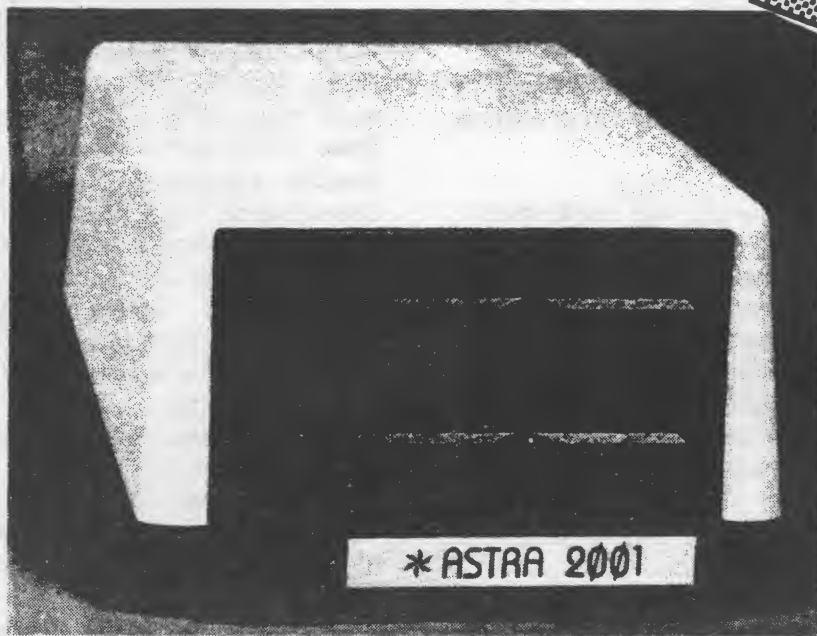
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**M.A.C.E. Monthly  
General Meeting**  
September 17, 1985

by Michael Lechkun, Recording Secretary

President Kirk Revitzer called the meeting to order at 7:41 PM at the Southfield Civic Center Pavillion room.

A Question and answer period was conducted:

Incompatibilities between the 810 & 1050 drives? Yes, DOS 3 on the 810, & early versions of Blue Max and the Monarch ABC basic compiler on the 1050 wont run properly  
A quick way to download from CompuServe? Only when the system is not crowded and at 1200 baud (watch for surcharges at this rate)  
Expansion of the XE to 256K? Yes, but only 64K is accessible at a time.

Can TOS/GEM be defeated? Yes, an article in Compute!'s latest issue addresses that question.

Did anyone know of a Digitizing program from Computer Eyes? No answers.

Eighty column monitors from Atari for 8-bit line? Dave Heinrich mentioned that the thrust of Atari's work was being devoted to the ST line, and did not know about the monitor. Dave brought an Atari ST to the meeting and ran demonstrations through the course of the meeting.

Burt presented the Treasurer's Report. He also read a question put to him about where the club's monies are being spent. He answered all questions to the satisfaction of those in attendance. Discussion was held: Are officer's meetings open? Yes, but not many have shown an interest in attending. Burt also mentioned that the "books" were open to any member to view.

Elections were held. Nominated for President were: Alva Thomas, Kirk Revitzer. Kirk declined, Alva was elected unopposed. Nominated for Vice President was Mike Mitchell. Mike was elected unopposed. Nominated for Treasurer was Burt Gregory.

Burt was elected unopposed. Nominated for Program Coordinator was Scott Garland. Scott was elected unopposed. Nominated for Corresponding Secretary was Sharie Middlebrook. Sharie was elected unopposed. Nominated for Recording Secretary were: Barbara Franczyk, Doug Geiss, Mike Chan and Mike Lechkun. After campaign speeches by the four, Mike Lechkun was elected, receiving more than 50% of the vote. Nominated for Disk Librarian was Dave Zappa. Dave was elected unopposed. Nominated for Membership Coordinator was Paul Wheeler. Paul was elected unopposed. Discussion was held on the new name for position previously held by the Cassette Librarian. Since cassettes are being de-emphasised, the position has been changed to Hardware Coordinator. Nominated for the position was Mike Landis. Mike was elected unopposed. This ended the elections.

Discussion was held: Our current status with "Uncle Sam" is that we are a "not for profit corporation". We are not tax exempt, however. Reports were requested of the recording secretary and treasurer. Burt again offered to show the books to any member and Mike Lechkun stated that he could put up the minutes on the MACE EAST BBS, as well as submit them to the Journal editor.

The break was held.

After the break, Ann Ezzell demonstrated OSS's Writer's Tool. Russell Crum demonstrated Paper Clip by Batteries Included.

The meeting was adjourned around 9:45 PM

\*\*\*\*\*

**PLEASE NOTE:**

When you call a manufacturer or retailer about a product you have seen advertised in our Journal, please tell them so. This will help us to continue to bring you the latest information on software and hardware that will make your Atari computer an even more valuable investment to you in the future.

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